

Notice of Allowability

Application No.

10/723,856

Examiner

Dharti H. Patel

Applicant(s)

KNIGHT, LARRY KEITH

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/05/2007.
2. ☒ The allowed claim(s) is/are 1-4, 6-8, 10-21, 23-37, 39-41, 43-54.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

The following is an examiner's statement of reasons for indicating allowance of claim 1: The prior art discloses a method for controlling ramp-up of a superconducting magnet, comprising connecting a power supply to the superconducting magnet, determining constraining parameters of the ramp-up, but does not disclose that the constraining parameters comprise magnet current during a first phase of the ramp-up and comprise magnet frequency of field strength during a second phase of the ramp-up; automatically controlling the ramp-up based on the constraining parameters, wherein a switching point specifies when constraining parameters change between the first phase and second phase. This feature in combination with the rest of the claim limitations is not anticipated or rendered obvious by the prior art of record.

The following is an examiner's statement of reasons for indicating allowance of claims 13 and 46: The prior art does not disclose applying power to the magnet constrained by a target magnetic field strength or frequency and by magnet temperature during a second phase of ramp-up, wherein transition from the first phase to the second phase occurs automatically without operation intervention. This feature in combination with the rest of the claim limitations is not anticipated or rendered obvious by the prior art of record.

The following is an examiner's statement of reasons for indicating allowance of claims 23 and 28: The prior art does not disclose one or more magnet temperature sensors coupled via an analog-to-digital converter to the auto-ramp controller for measuring magnet temperature; and a magnet field strength or frequency sensor coupled via a meter to the auto-ramp controller for measuring magnet field strength or

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frequency. This feature in combination with the rest of the claim limitations is not anticipated or rendered obvious by the prior art of record.

The following is an examiner's statement of reasons for indicating allowance of claim 34: The prior art does not disclose means for determining constraining parameters of the ramp-up, wherein constraining parameters comprise magnet current and temperature during a first phase of the ramp-up and comprise magnet frequency or field strength and temperature during a second phase of the ramp up; means for automatically controlling the ramp-up based on the constraining parameters, wherein a switching point specifies when constraining parameters change between the first phase and second phase. This feature in combination with the rest of the claim limitations is not anticipated or rendered obvious by the prior art of record.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Fletcher on 07/05/2007.

Please amend the following:

Claims 10-11 depend on a cancelled claim 9. Claims 10-11 should depend on claim 1.

Appropriate correction is required.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dharti H. Patel whose telephone number is 571-272-8659. The examiner can normally be reached on 7:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dharti Patel
AU 2836
07/05/2007



MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER
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